

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (currently amended) A system for regulation and discontinuous measurement of an oxygen content or a content of any other gas in platforms for composting or processing waste, in the form of swaths, the system comprising:

at least one remote bay having one measurement probe for measuring a concentration of a given gas and, the measurement probe being at least one oxygen or CO₂ measurement probe;

a gas intake pump;

electric valves operated by a program controller; and

a plastic pipe connecting each of the electric valves to a gas sampling device, the electric valves coupled to the pump allowing the air and the gases contained in this air at each sampling device to be drawn in successively and sent to the measurement probe;

wherein the sampling device is a hollow sampling rod with [[an]] a tapered air intake strainer at one end able to be driven into the pile(s) of waste or compost, a tube forming the rod, each one of the hollow sampling rods corresponding to one single pipe, the pipe passing through the hollow rod and emerging inside the air intake strainer, and the oxygen measurement probe is able

to supply within a very short response time the measurement of the oxygen content of several swaths and that consequently oxygen measurement probe is a heated zirconium oxide sensor with a response time less than ten seconds, the single gas measurement probe, in particular to measure oxygen or CO₂, respectively, the oxygen or CO₂ content of several swaths is determined by means of samples obtained from the various gas sampling rods.

2. (previously presented) The system as in claim 1, wherein the electric valves are separate from the program controller or are integrated directly into the program controller.

3. (previously presented) The system as in claim 1, wherein attachment of the rod to the pipe uses a packing gland facilitating fastening or insertion of the pipe.

4. (canceled)

5. (previously presented) The system as in claim 1, wherein the program controller further comprising at least one temperature probe attachable to at least one input/output port enabling the program controller to receive PT 100 or PT 1000-type signals for temperature measurement.

6. (previously presented) The system as in claim 1, wherein the rod for sampling air in the waste, and used for measuring the concentration of oxygen, CO₂ or any other gas, does not contain a sensor or a transmitter built into a body of the rod, but only the intake strainer and the pipe.

7. (previously presented) The system as in claim 1, wherein the gas intake pump is equipped with a device for regulating a flow of air to the probe(s), or a rotameter.

8. (previously presented) The system as in claim 1, wherein the air-sampling rod contains, at one end, the intake strainer and, at an other end, a packing gland providing effective sealing between the hollow rod and the plastic pipe and holds the plastic pipe in place.

9. (previously presented) A gas measurement system for sampling and measuring gas content in piles or platforms of composting or processing waste, in the form of swaths, the gas measurement system comprising:

at least one remote bay having at least one gas measurement probe, the gas measurement probe being a heated zirconium oxide sensor, the gas measurement probe being in communication with a program controller;

a gas intake pump;

at least one electric valve operated by the program controller; and

at least one plastic pipe connected the electric valve to a hollow rod, the electric valve being coupled to the pump allowing the air and the gases contained in the air at the hollow rod to be drawn in successively and sent to the gas measurement probe;

wherein the hollow rod has a first end able to be driven into the pile of waste or compost, the first end of the hollow rod being fitted with a tapered air intake strainer, and a second end opposite of the first end in which the plastic pipe passes through the hollow rod to emerge inside the strainer, the plastic pipe being fastened and sealed to the hollow rod by means of a packing gland, the first end of the smooth rod being fitted with a tapered air intake strainer;

wherein the program controller having at least one temperature probe and at least one input/output port enabling the program controller to receive PT 100 or PT 1000-type signals for temperature measurement or other signals for measuring other gases present.

10. (previously presented) The gas measurement system as in claim 9, further comprising a main bay in communication with the program controller of the remote bay via a bus.

11. (previously presented) The gas measurement system as in claim 9, wherein the gas intake pump being equipped with a device for regulating the flow of air to the gas measurement probe, the gas measurement probe being a rotameter.

12. (canceled)

13. (new) A process for regulation and discontinuous measurement of an oxygen content or a content of any other gas in platforms for composting or processing waste, in the form of swaths, the process comprising the steps of:

- installing at least one remote bay having one measurement probe for measuring a concentration of a given gas and, the measurement probe being at least one oxygen or CO₂ measurement probe; the remote bay having a gas intake pump and electric valves operated by a program controller;

- connecting a plastic pipe to each of the electric valves and to a corresponding gas sampling device, the electric valves coupled to the pump allowing the air and the gases contained in this air at each sampling device to be drawn in successively and sent to the measurement probe;

- driving into the pile(s) of waste or compost, the sampling devices, each of them being a hollow sampling rod with a tapered air intake strainer at one ends said end being driven into the pile, a tube forming the rod, each one of the hollow sampling

rods corresponding to one single pipe, the pipe being passed through the hollow rod and emerging inside the air intake strainer; and

- utilizing as the oxygen measurement probe a heated zirconium oxide sensor with a response time less than ten seconds, in order the oxygen measurement probe being able to supply within a very short response time the measurement of the oxygen content of several swaths and that for measuring, respectively, the oxygen or CO₂ content of several swaths by means of samples obtained from the various gas sampling rods, the program controller opens and closes the electric valves allowing the gas to be sampled successively in each rod, said gas corresponding to air actually drawn in from outside the rod and which did not stagnate in the plastic pipe.